

**University of Jordan**  
**King Abdullah School of Information Technology**  
**Department of Computer Science**  
**Computer Skills II (Scientific Faculties) / Midterm Exam**

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**Note: Answer question 1 here.**

	Syntax Error	Correction
1	#include <iostream>;	#include <iostream>
2	Using namespace ;	using namespace std;
3	doubl av;	double av;
4	Else without if	Remove ; from end of if
5	<u>For</u> (int i=0;i<5;i+)	<u>for</u> (int i=0;i<5;i+)
6	For(int i=0;i<5; <u>i+</u> )	For(int i=0;i<5; <u>i++</u> )
7	cin<<number;	cin>>number;
8	<<number" Is Odd"<<endl;	<<number<<" Is Odd"<<endl;
9	Main function with no close brace	Add another } to the end of program
10	number variable is not declared.	Add the following statement: int number;

**Q1: Find and correct syntax error(s) in the following program.  
(10 points)**

```
#include <iostream>;
using namespace ;
void main ()
{
    int a,b,max;
    int x;
    doubl av;
    char z;
    cout<<"Enter Two Integer Number:";
    cin>>a>>b;
    if(a>=b);
        max=a;
    else
        max=b;
    cout<<"Max="<<max<<endl;
    For(int i=0;i<5;i+)
    {
        cout<<"Enter Integer Number:";
        cin<<number;
        if(number%2==0)
        {
            cout<<"Number "<<number<<" Is Even"<<endl;
        }
        else
            cout<<"Number "<<number<<" Is Odd"<<endl;
        }
    }
}
```

Q2: What is the Output of the following Code Segments? (10 points)	
<pre> void main() {     int x , y; double z;     string str = "";     char w;      cin&gt;&gt;x&gt;&gt;z;     cin.get(w);     cin&gt;&gt;y;     getline(cin,str);      x += (str &gt; "Hello" ? 10 : 100);     cout&lt;&lt;"x is:"&lt;&lt;x&lt;&lt;"\n"&lt;&lt;"y is:"&lt;&lt;y&lt;&lt;"\n"         &lt;&lt;"z is:"&lt;&lt;z&lt;&lt;"\n"&lt;&lt;"w is:"&lt;&lt;w&lt;&lt;"\n"         &lt;&lt;"str is:"&lt;&lt;str&lt;&lt;"\n"; } </pre>	<u>Assume the input as follows:</u>
	12 3.9 20 Hello
	<u>Stored Value For Each Variable</u>
	x = 112 y = 20 z = 3.9 w = space str = Empty String
<pre> void main() {     int j = 12 , i = 4 ;     cout&lt;&lt;j--&lt;&lt;" "&lt;&lt;i&lt;&lt;"\n";     while( j &gt; 9 )     {         switch( j ) {             case 10:                 j++;             case 11:                 cout&lt;&lt;(j % 5)&lt;&lt;" ";             case 12:                 cout&lt;&lt;++j&lt;&lt;" ";                 break;             default:                 j += i/2;                 break;         }         cout&lt;&lt;j&lt;&lt;"\n";         j -= 5; } } </pre>	<u>Output</u>
	12 4 1 12 12

**Q3: Write a C++ code to read a group of integer values and calculate the average of only even ones. The input should terminate at the time of input for a negative integer. (5 points)**

```
#include<iostream>
using namespace std;
void main()
{
```

```
#include<iostream>
using namespace std;
void main()
{
```

```
    int val, counter = 0;
    double sum = 0 , avg;
```

→ 1 mark

```
    cout<<"Enter a value: ";
    cin>>val;
```

→ 1 mark

```
    while(val >= 0) → 1 mark
```

```
{
```

```
    if(val%2 == 0){
        sum += val;
        counter++;
```

→ 1 mark

```
    }
```

```
    cout<<"Enter a value: ";
    cin>>val;
```

→ 1 mark

```
}
```

```
    if(counter != 0)
    {
        avg = sum / counter;
        cout<<avg<<"\n";
    }
}
```

→ 1 mark

**Q4: Write a C++ code to input an integer value (assume its name is N) and calculate the summation for the first N terms of the following series: (Note: Don't use Pow function in your solution) (5 points)**

---

$$1 + \frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \frac{1}{16} + \dots$$

```
#include<iostream>
```

```
using namespace std;
```

```
void main()
```

```
{
```

```
double sum = 0;
```

```
int N, x = 1;
```

→1 mark

```
cout<<"Enter Number of terms:";
```

```
cin>>N;
```

→1 mark

```
for(int i = 1; i <= N ; i++)
```

→1 mark

```
{
```

```
sum += 1 / x;
```

```
x *= 2;
```

→1 mark

```
}
```

```
cout<<sum<<"\n";
```

→1 mark

```
}
```